Anti- Ferredoxin-3 (maize) antibody, rabbit polyclonal

81-013　　100 μg

Shipping and Storage: Shipped at 4℃ or -20℃ and store at -20℃. Do not freeze.

Immunogen: Purified recombinant maize Fd3 protein (full-size, no-tag attached)

Form: 1 mg/ml in PBS- with 50% glycerol. Filter sterilized. No preservative or carrier added.

Purity: IgG, affinity-purified with Protein A.

Validation: Specificity has been validated by WB with recombinant full-size maize Ferredoxin-3 (Fd3) protein.

Reactivity: Plant Fd3 proteins including those of Maize and Arabidopsis.
Cross-reacts weakly with other Ferredoxin isoproteins, like Arabidopsis and Maize Fd2, and Maize Fd6.

Applications:

1. Western blotting (1/2,000-1/10,000 dilution)
2. ELISA (Asssay dependent)

Other applications have not been tested。

Background: Ferredoxins are iron-sulfur proteins that transfer electrons in a wide variety of metabolic reactions. Fd3 is non-photosynthetic Fd expressed more in root than in leaf.

Sucellular location: Chloroplast and Plastid

Data Link: Swiss-Prot P27788 (Z. mays), Q9ZQG8 (A. thaliana),

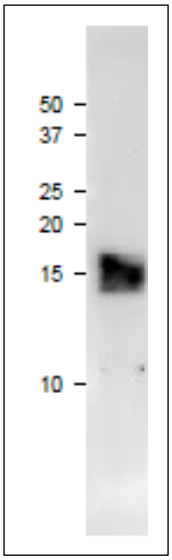

Fig.1　Western blot of purified maize Ferredoxin-3
The primary antibody was used at 1/2,000 dilution

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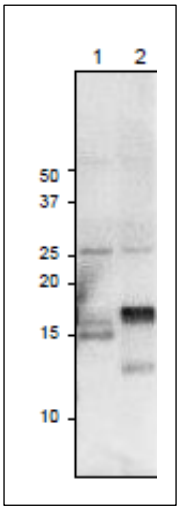

Fig.2 Western Blot of root ferredoxins expressed in plant leaves as detected with anti-Ferredoxin-3 antibody

Anti-Fd3 antibody was used at 1/1,000 dilution. Secondary antibody (goat anti-rabbit IgG antibody HRP-conjugated, ab97051) was used at 1/10,000 dilution.

1. Arabidopsis leaf extract, 10 µg
2. Maize leaf extract, 10 µg

The antibody detects root-type ferredoxins expressed in leaves..

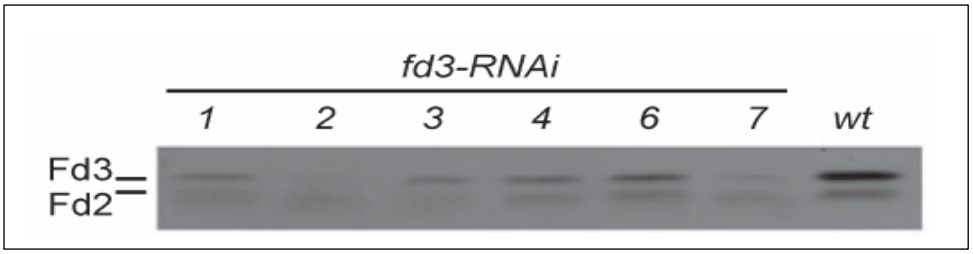

Fig.3 Reduction of Fd3 protein expression by various *fd3*-RNAi in Arabidopsis as detected by western blotting with anti-Ferredoxin 3 antibody

The anti-Fd3 antibody was used at 1/5,000 dilution.

Different levels of reduction in Fd3 expression were observed with different RNAi (lane 1-7) expressed in T1 plants. Samples were extracts from ground tissue. Wt is without RNAi expression.

Reference: This product has been used in the following publication.

1. Matsumura T, Sakakibara H, Nakano R, Kimata Y, Sugiyama T, Hase T. A nitrate-inducible ferredoxin in maize roots. Genomic organization and differential expression of two nonphotosynthetic ferredoxin isoproteins. Plant Physiol. 1997 Jun;114(2):653-60. PMID: 9193097 **WB; Maize**
2. Hanke GT et al,. A post genomic characterization of Arabidopsis ferredoxins. Plant Physiol. 2004 Jan;134(1):255-64. PMID: 14684843 **WB; Arabidopsis**
3. Hanke GT, Hase T. Variable photosynthetic roles of two leaf-type ferredoxins in arabidopsis, as revealed by RNA interference. Photochem Photobiol. 2008 Nov-Dec;84(6):1302-9. PMID: 18673322 **WB ; Arabidopsis**

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